

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA2004/000992

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G05B23/02 B21B38/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G05B G07C G01H B21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 260 004 B1 (LENZ GARY A ET AL) 10 July 2001 (2001-07-10) column 19, line 64 - column 20, line 30 column 21, line 10 - line 45 column 25, line 52 - column 26, line 56 -----	1, 19
A	US 6 434 512 B1 (DISCENZO FREDERICK M) 13 August 2002 (2002-08-13) column 6, line 8 - line 47 column 9, line 44 - column 10, line 23; figures 1,4e-6d -----	1, 19
A	WO 03/016838 A (SIEMENS AG ; VOELKEL THOMAS (DE)) 27 February 2003 (2003-02-27) page 5, line 7 - page 6, line 31 page 8, line 11 - page 10, line 5; figures 1-6 ----- -/--	1, 19

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

24 November 2004

Date of mailing of the international search report

02/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Cîrîc, G

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA2004/000992

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 523 701 A (SMITH STEPHEN F ET AL) 4 June 1996 (1996-06-04) column 1, line 10 - line 18 column 3, line 55 - column 5, line 67; figures 3-8</p> <p style="text-align: center;">-----</p>	1,19

INTERNATIONAL SEARCH REPORT

International Application No
PCT/CA2004/000992

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6260004	B1	10-07-2001	US 6330525 B1	11-12-2001
US 6434512	B1	13-08-2002	US 6196057 B1	06-03-2001
			US 6324899 B1	04-12-2001
			US 6295510 B1	25-09-2001
			US 6023961 A	15-02-2000
			US 6546785 B1	15-04-2003
			US 6286363 B1	11-09-2001
WO 03016838	A	27-02-2003	DE 10138919 C1	02-01-2003
			WO 03016838 A1	27-02-2003
			EP 1415132 A1	06-05-2004
			US 2004153268 A1	05-08-2004
US 5523701	A	04-06-1996	NONE	